



NSPS/NESHAP

217/782-2113

OPERATING PERMIT -- NESHAP SOURCE

PERMITTEE

LTV Steel Co.
Attn: Michael J. Thomas
116th & Burley Avenue
Chicago, Illinois 60617

EPA Region 5 Records Ctr.



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STATE OF ILLINOIS

Application No.: 81090054

I.D. No.: 031600AMC

Applicant's Designation: 2100410

Date Received: April 5, 1990

Subject: Coke PIT & Coke By-Product Recovery PIT

Date Issued: June 27, 1990

Expiration Date: September 14, 1991

Location: 116th & Burley Avenue, Chicago, IL

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of 60 - 6 meter coke ovens, 2 mobile larry cars connected to a wet scrubber, a mobile coke receiving car connected to 4 baghouses, a quench tower equipped with 4 rows of baffles, a coal bunker with baghouse, a shaker and mixer building with baghouse, a breaker building with baghouse, a screen building with a baghouse, an ammonium sulfate dryer with a scrubber, a coke by-product recovery plant, by-product plant Hirohax scrubber and 24 organic material storage tanks as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. The Coke Battery shall comply with Best Available Control Technology, as established in PSD Permit EPA-5-79-A-9, except as applicable to visible emissions from door. In particular:

- i. The duration of visible emissions during charging operations shall not exceed a total of 55 seconds for five consecutive charges.
- ii. Emissions of particulates from the waste gas stack shall not exceed 0.03 grains/DSCF.
- iii. At no time shall there be visible emissions from greater than 5% of the offtake piping and 2% of the charging hole lids. (Offtakes encompass all pipe and inspection ports between the oven and the main.)
- iv. Not less than 90% of the emissions resulting from pushing coke from coke ovens shall be captured and exhausted to a group of four baghouses. The emissions from the four baghouses shall not exceed 0.03 pounds of particulate matter per ton of coke pushed. The visible particulate matter escaping from the hoods used to capture these emissions will not exceed 20% opacity.



- v. Quenching will be performed in a quench tower fitted with a baffle type mist suppressor using service water make-up. The water applied to the coke in quenching shall not include coke-by-product plant effluent and will have a dissolved solids content of less than 1500 mg/l.
- vi. No coke-oven gas from battery No. 2 shall be burned unless it contains a concentration of sulfur compounds, expressed as H_2S , of less than 35 grains per 100 dry standard cubic feet (dscf) of coke-oven gas produced. Included in this determination are all sulfur compounds, expressed as H_2S , emitted from sulfur recovery equipment used to process the sulfur compounds removed from coke-oven gas.
- i. The Coke Battery shall comply with Best Available Control Technology for visible emissions from doors in accordance with PSD Permit EPA-5-79-A-9, as amended by a Consent Decree between the USEPA and the Permittee.
- ii. The Permittee shall comply with the provisions for visible emissions from doors of the Consent Decree to which the Permittee has indicated acceptance by its signature.
- 2a. During malfunction and breakdown, operation in excess of the applicable emission standards of 35 Ill. Adm. Code Subtitle B, Chapter I, Subchapter c. is allowed.
- b. The Permittee shall notify the Agency's regional office by telephone as soon as possible during normal working hours upon the occurrence of excess emissions due to malfunctions, or breakdowns or other events. The Permittee shall comply with all reasonable and safe directives of the regional office regarding such malfunctions and breakdowns which result in emissions in excess of Subchapter c.
- c. Within five (5) working days of a malfunction or breakdown or other event resulting in excess emissions, the Permittee shall give a written follow-up notice to the Agency's regional office providing
 - i. an explanation of the occurrence,
 - ii. the length of time during which operation continued under such conditions,
 - iii. measures taken by the Permittee to minimize excess emissions and correct deficiencies, and,
 - iv. when normal operation resumed.



- d. The permittee shall maintain records of malfunctions or breakdowns, and other events resulting in excess emissions. As a minimum, these records shall include:
 - i. date and duration of malfunction or breakdown or other event;
 - ii. a full and detailed explanation of the cause for excess emissions;
 - iii. the contaminants emitted and an estimate of the quantity of emissions;
 - iv. the measures used to reduce the quantity of emissions and the duration of the occurrence; and
 - v. the steps taken to prevent or to reduce the frequency and severity of similar malfunctions or breakdowns or other events.
- e. These records shall be retained for at least two years following an occurrence, maintained at a readily accessible location at the plant, and be available to representatives of the Agency during normal working and/or operating hours.
3. Pursuant to 35 Ill. Adm. Code 212.443(1), "Air Pollution Control Operating and Maintenance Work Rules For the Coke Ovens," dated February 22, 1983, incorporated herein by reference, as submitted by Republic Steel, are approved by the Agency and shall be followed, until and unless revised work rules are approved by the Agency.
4. The coal charged to the coke ovens is limited to 2765 tons per day.
5. The Permittee shall implement a leak inspection and repair program for the Coke By-Product Plant, in accordance with 35 Ill. Adm. Code Part 215, Subpart U. In particular:
 - a. All components in Light Oil Liquid Service shall be inspected visually, at least weekly, to determine if they are leaking. The leaks shall be identified by tagging or other means obvious to plant personnel and to Agency Personnel. The presence of a leak shall be entered in a monitoring log. All leaking components shall be reapried as soon as practicable, but no later than 21 days after the leak is discovered, unless the component cannot be repaired until the unit is shut down or until parts needed to correct the leak are available.
 - b. The monitoring log shall contain, as a minimum, the following information for each component found leaking:
 - i. The name of the process unit where the observed leaking component is located;
 - ii. Identification of the type of component (e.g., valve, seal);



- iii. The date on which the leaking component is first observed;
 - iv. The date on which a leaking component is repaired;
 - v. Identification of the type of leaking components which cannot be repaired until unit shut down; and
 - vi. Identification of component leaks which are not repaired within 21 days after discovery because of the unavailability of replacement parts, including the date the repair part was ordered and the date the repair part was received.
- c. The monitoring log shall be retained for at least 2 years after the date on which a record was made. The log shall be made available to Agency personnel during any Agency inspection or shall be mailed to Agency personnel upon written request.
- d. A statement, attesting that monitoring and repairs were performed as required by these special conditions and signed in accordance with 35 Ill. Adm. Code 201.159, shall be mailed to the Agency prior to May 1 and August 1 of each year.
6. Prior to undertaking 1) a physical change to equipment other than routine maintenance, repair or replacement of components, 2) an increase in the coal charged to the coke ovens above 2765 tons per day, or 3) other change in the method of operation that could increase emissions, the Permittee shall submit an application for permit for such change, pursuant to 35 Ill. Adm. Code 201.142. In addition to such other information as may be required, such applications shall identify for each emission source and the battery as a whole 1) whether the proposed change alters the original capacity of equipment, 2) whether the operation of equipment following such change will be consistent with the description of the equipment in the application and the operation and design of the equipment as built, pursuant to PSD Permit No. EPA-6-79-A-9, as amended by any revised PSD permit or Consent Decree, 3) the resulting level of emissions and the change in actual emissions, and 4) whether the proposed change is subject to applicability of either the federal regulations for Prevention of Significant Deterioration, 40 CFR 52.21, or the State rules for Major Stationary Source Construction and Modification, 35 Ill. Adm. Code Part 203, accompanied by supporting explanation.
7. This Coke By-Products Recovery Plant contains sources in benzene service subject to National Emission Standard for Hazardous Air Pollutants (NESHAP), 40 CFR 61, Subpart L, which are adopted as 35 Ill. Adm. Code 231. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement.



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8. This permit is issued based upon the USEPA's approval of LTV's request for a waiver of compliance from 40 CFR §§61.132 and 61.133 and a waiver of emission testing from 40 CFR §§61.132 and 61.133. The Permittee shall comply with all conditions of the waiver of compliance as addressed in conditions 9 thru 15 of this permit.
9. For each source for which the waiver of compliance is approved, LTV shall implement the corresponding emission control system as shown in Enclosure 1 of the waiver approval letter of June 7, 1990.
10. For those sources for which the waiver of compliance is approved, the following increments for achieving compliance with the standards must be attained:
 - a. Submit a copy of the purchase order(s) to complete detailed engineering for the emission control systems. July 15, 1990
 - b. Award major purchase order(s) for the emission control system and submit a copy of the purchase order(s). October 31, 1990
 - c. Begin major on-site construction/installation of the emission control systems. December 1, 1990
 - d. complete construction/installation of the emission control systems. September 1, 1991
 - e. Achieve and demonstrate compliance September 13, 1991
11. During the period of the waiver of compliance, LTV shall implement interim emission control measures to ensure that:
 - a. In-plant exposure to benzene is less than 5 parts per million (ppm), as an average over any 15-minute period, except in the tar loading work area during periods when tar is being pumped.
 - b. In-plant exposure to benzene is less than 1 ppm, as an average over any 8 hour work shift.
12. No later than 10 days after each increment in Condition 10 above has been attained, LTV shall provide written notification that the increment has been attained, and the date it was attained.
13. If LTV fails or will fail to attain any increment in Condition 10 above by the date specified, or to meet any requirement of Condition 11 above at any time during the period of the waiver of compliance, LTV shall provide written notification immediately upon learning of such failure. The notification shall include an explanation of such failure. Reporting any such failure shall not serve as a basis for precluding an enforcement action.



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14. If at any time the U.S. EPA, Region V, determines that the Chicago, Illinois coke by-product recovery plant is creating a situation of imminent endangerment, U.S. EPA will notify you as to what steps are necessary to prevent imminent endangerment. Such steps must be taken by the date provided in the notice.
15. All submittals and written notifications required herein shall be submitted to: Chief, Air Compliance Branch, U.S. EPA, Region V, 230 South Dearborn Street, Chicago, Illinois 60604, Attention: NESHAP Tracking Specialist; and shall be simultaneously submitted to: Manager, Field Operations Section, Division of Air Pollution Control, Illinois Environmental Protection Agency, 2200 Churchill Road, P.O. Box 19276, Springfield, Illinois 62794-9276.
16. This permit becomes effective upon the dismissal of permit denial appeal PCB 20-51.
17. This permit is no longer effective upon termination of the waiver of compliance.
18. All sources not covered by the USEPA waiver of compliance that are subject to 40 CFR Part 61, Subpart L shall be in compliance with the emission standard of the aforementioned regulation.
19. Upon renewal of this permit, the Permittee shall submit the following:
 - a. All necessary records and performance tests that will allow the Agency to determine compliance with 40 CFR Part 61, Subpart L.
 - b. The percentage of annual coke production that is foundry coke, as defined in 40 CFR §61.131.

It should be noted that this permit has been revised in accordance with 40 CFR Part 61, Subpart L.

Terry A. Sweitzer, P.E.
Manager, Permit Section
Division of Air Pollution Control

TAS:JRR:jmm/sp0181K/11-16 *grr*

cc: Region 1
Enforcements